

4. Research Projects. As conditions warrant Galveston County may try on a temporary basis research projects to enhance pedestrian and vehicle access technologies in order to assess new methods and techniques on a limited trial bases. Proposals to implement research projects will be coordinated with the Building Official and forwarded to the GLO for comments.
5. Consistency Determinations. Any future request for Federal Funding for new projects that will be constructed in the Beach Dune System will be coordinated with the Coastal Coordination Council to ensure consistency requirements for federal funding are addressed.
6. Beachfront Construction Permits. In the areas of Galveston County where shore protection projects such as sandsock projects have been completed a Coastal Construction Permit will not be issued to an individual for new construction of a habitable structure seaward of the sandsock complex.
7. Monitoring Program. In accordance with the Agreement between Coastal Coordination Council and Galveston County dated March 15, 2001 and fully executed on March 26, 2001 (Agreement) regarding completed geotube® containment system/shore protection projects a monitoring program has been developed and submitted to the Coastal Coordination Council (CCC). Galveston County is responsible for implementing the monitoring program. A copy of the Agreement is attached to this Order as Appendix 3 and is incorporated herein by reference.
8. Nourishment Plan. In accordance with the Agreement a beach nourishment program has been developed and submitted to the CCC. Galveston County is responsible for implementing the beach nourishment plan.
9. Future Shore Protection Projects. Future sandsock/shore protection projects sponsored by Galveston County that are constructed in the beach dune system subject to this Order will complete the application process for a Coastal Construction Permit.
10. Existing Shore Protection Projects. The requirements for geotube® containment systems constructed prior to the adoption of this Order are pursuant to the Agreement. This Order shall not be used, construed, or deemed to prohibit the terms of the Agreement, including but not limited to, beach nourishment, access, monitoring, removal, and maintenance/repair of the geotube® containment systems subject to the Agreement.
11. Location of Existing Shore Protection Projects. A map showing the location of sandsocks/geotube® containment systems constructed prior to the adoption of this Order is attached hereto as Appendix 4; this map includes sandsocks/geotube® containment systems constructed in areas on Galveston Island not subject to this Order and/or for which the County did not participate in their construction.
12. Trademark. The word "geotube" is a registered trademark owned by Ten Cat Nicolon, Miratech Division. "Geotube" is correctly used herein, as the containment systems installed in areas subject to this Order include the geotube, the product to which the trademark refers.

IV. DUNE RECONSTRUCTION

A. Guidelines for Improving, Rebuilding, or Repairing Dunes

1. Generally
 - a. Sand dunes being rebuilt or replaced must not be weaker than original dunes;

- b. Nothing contained herein will serve to alter the location of the line of vegetation, as defined herein, by non-natural, or humanly induced means; including but not limited to plantings, irrigation, fertilization, fencing, or placement of materials or vegetation designed to, or which will have the effect of creating or altering a line of vegetation, except as pursuant to the Open Beaches Act;
 - c. These guidelines are intended to provide a structure for the improvement or rebuilding of existing dune fields;
 - d. This process does not authorize the removal, destruction, material weakening, alteration of existing vegetation, or other actions on existing dunes;
 - e. Nothing contained herein authorizes or permits activities or actions which in any manner damage dunes or dune vegetation; and
 - f. Any authorization contained herein is subject to the rules, orders, ordinances, or policies adopted by other local governments within Galveston County exercising their authority under Chapters 61 and 63 of the Texas Natural Resources Code.
2. Requirements. Except as otherwise expressly provided in this Order, the County will not authorize restoration of dunes on a public beach unless it finds and the applicant demonstrates that the following requirements are met.
- a. Restored dunes:
 - (1) will extend no more than 20 feet seaward of the landward boundary of the public beach and will follow the natural migration of the line of vegetation; and
 - (2) will not restrict or interfere with public use of the beach at normal high tide.
 - b. Restored dunes may be located farther seaward than 20 feet of the landward boundary of the public beach only upon:
 - (1) an affirmative demonstration by the permit applicant that substantial dunes would likely form farther seaward naturally; and
 - (2) prior written approval of the GLO.
 - c. All restored dunes will be continuous with any surrounding naturally formed dunes; will approximate the natural position, contour, volume, elevation, vegetative cover, and sediment content of any naturally formed dunes in the proposed dune restoration area; and will be planted with indigenous vegetation that will achieve the same protective capability as the surrounding natural dunes.
 - d. The following methods or materials may be used to restore dunes if built in accordance with §15.7 of the GLO Rules and the requirements of this Order:
 - (1) piles of sand having similar grain size and mineralogy as the surrounding beach;
 - (2) temporary sand fences conforming to GLO guidelines, provided that no person shall be allowed to install a sand fence that extends more than twenty (20) feet seaward of the line of vegetation or that restrains or interferes with the public's right of access to and use of a public beach;
 - (3) organic bushy materials such as seaweed and other naturally occurring and biodegradable debris that is left upon the beach;
 - (4) sand obtained by scraping accreting beaches only if the scraping is approved by the County and the project is monitored to determine any changes that may increase erosion of the public beach;
 - (5) scientific research projects conducted by an academic institution or state, federal, or local government only if and only when permitted by the GLO following the

- requirements for scientific research and only then if all other GLO criteria are also met;
- (6) hay-bale dunes; and
- (7) engineered structures for Shore Protection Projects only as pursuant to Section III(I) of this Order.
- e. The following methods or materials must not be used to restore dunes:
 - (1) hard or engineered structures, unless approved by Commissioners' Court under Subsection III(I)(1) above.
 - (2) materials such as bulkheads, rip-rap, concrete, or asphalt rubble, building construction materials, and any non-biodegradable items;
 - (3) fine, clayey, or silty sediments;
 - (4) sediments containing the toxic materials listed in Volume 40 of the Code of Federal Regulations, Part 302.4 in concentrations which are harmful to people, flora, and fauna as determined by applicable, relevant, and appropriate requirements for toxicity standards established by the local, state, and federal governments; and
 - (5) sand obtained by scraping or grading dunes or the beach.
- f. Activities affecting restored dunes are subject to the same restrictions and requirements as natural dunes. Permittee must not construct or maintain private structures on restored dunes, within critical dune areas or seaward of a dune protection line, except for specifically permitted dune walkovers or similar access ways meeting the requirements of this Order.
- 3. Application Process. All applications or proposals for reconstructing dunes on the public beach must be received by the GLO at least ten (10) working days prior to the decision on the application.

B. Permit for Improving, Rebuilding, or Repairing Dunes

- 1. When Required
 - a. When a person seeks to construct, alter, or otherwise take actions designed specifically to increase the heights, width, or volume of a dune, or seeks to take actions designed to place or increase the amount of vegetation on a dune within Galveston County seaward of the dune protection line the proponent must comply with this Order.
 - b. The placement of seaweed at the toe of existing dunes by the County will not require a permit.
- 2. Permit Process
 - a. The County Building Official will issue a Coastal Construction Permit under the authority of this Plan to expedite the improvement, rebuilding, or repair of sand dunes within the County.
 - b. The permit authorizes conduct upon the finding by the County Building Official that the proposed activity is consistent with this Order.
 - c. The Commissioner may review and comment upon the permit before its issuance as provided for in this Order.
 - d. An application for a Coastal Construction Permit must be addressed to:
The Galveston County Building Official
Office of the County Engineer
123 Rosenberg, Room 4157

Galveston, Texas 77550

- e. Application must be made in the form of a letter describing the proposed project. The letter of application must contain a vicinity and location map with subdivision, block, and lot numbers indicated thereon. Drawings showing the dimensions of the proposed dune-building project and a brief description of the materials and methods to be used must be included. The application must clearly indicate the location of the existing vegetation line and the proposed activity in relation to the existing vegetation line.
- f. At least ten (10) working days prior to making his or her decision on the permit, the County Building Official will forward a copy of the entire application for the permit to the Commissioner of the GLO for comment and review. The County Building Official shall consider the comments of the Commissioner in the issuance of the permit. If the Commissioner does not provide written exception to application within ten (10) business days of the receipt of the application by the Commissioner, the County Building Official may proceed as authorized under this Order.
- g. Conditions of Permit
 - (1) All activities identified and authorized under this permit will be consistent with the terms and conditions of the permit, the Texas Natural Resources Code, and all other applicable laws and regulations. The undertaking of any activities not specifically identified and authorized by the permit will constitute a violation of the terms and conditions of the permit and may result in the modification, suspension, or revocation of the permit in part or in whole, or may result in prosecution as authorized elsewhere herein.
 - (2) This permit is subject to the provisions of the chapter of this Order known as Specific Guidelines for Improving, Rebuilding, or Repairing Dunes.
 - (3) No work may be undertaken until the applicant receives written authorization from the County Building Official in the form of the permit.
 - (4) Each permit must have plans and drawings, provided by the applicant, attached thereto which will specify the approved work. The work performed must conform to the plans and drawings. The failure to conform work performed will constitute work performed without a permit and may result in prosecution as authorized elsewhere herein.
 - (5) All work approved under this permit must be completed within one year from the date on which the permit is issued.
 - (6) The area of the proposed work must be staked so that an on-site inspection may be made by the County Building Official, a representative of the GLO, or other interested parties.
 - (7) The holder of a permit must notify the County Building Official of project completion, in writing, within ten (10) days after project completion. The County Building Official will then notify the Commissioner.
 - (8) No attempt may be made by the holder of a permit to prevent the full and free use of the public beach as guaranteed by the Texas Open Beaches Act.
 - (9) The holder of a permit who fails to complete the authorized work before the expiration of the letter must, without expense to Galveston County or the State of Texas and in such time and manner as the County Building Official may direct, restore the area to its former conditions. If the holder of a permit fails to comply

with the directive of the County Building Official, the County may restore the dune area to its former condition, by contract or otherwise, and recover the cost of the restoration from the holder of the permit or the owner of the land affected.

C. Specific Guidelines for Improving, Rebuilding, or Repairing Dunes

1. Mechanical

a. Materials:

- (1) Standard wood-slat or plastic sand fencing, not to exceed 4 feet in height measured from the ground surface after installation, may be used to construct new sand dunes or to reconstruct damaged sand dunes provided that a sand fence shall not extend more than twenty feet seaward of the line of vegetation or restrain or interfere with the public's right of access to and use of a public beach.
- (2) Seaweed, not to exceed 6 feet in height measured from the ground surface, is considered suitable material for sand dune building.
- (3) Inorganic debris, such as vehicle bodies, concrete wire, tires, etc., is not acceptable material for sand dune building.
- (4) Sand may be imported to reduce dune building time. Importing of sand must be done in accordance with Subchapter F of Chapter 61 of the Texas Natural Resources Code and other applicable federal, state, and local laws.

b. Placement of dune-building materials:

- (1) In breach, embayment, or blowout areas:
 - (a) Dune-building structures must be placed parallel to the gulf shoreline.
 - (b) If the width of the breach, embayment, or blowout is less than 100 feet, the length of the dune-building structure must not exceed two-thirds of the width of the area.
 - (c) Dune-building structures must be placed first at the landward point of the breach, embayment, or blowout that is farthest from the Gulf shoreline.
 - (d) Multiple tiers of dune-building structures may be used in these areas to increase sand entrapment and raise ground elevations. Breaks in the multiple tiers must be offset to facilitate sand entrapment.
 - (e) No dune-building structure may extend gulfward of existing dune line on either side of breach, embayment, or blowout.
- (2) For repairing damaged sand dune frontal areas:
 - (a) Dune-building structures for repairing damaged sand dune frontal areas must be placed parallel to the gulf shoreline. The length of these structures must conform to guidelines described above.
 - (b) Dune-building structures may be placed no more than 20 feet seaward of the landward boundary of the public beach.
 - (c) The second tier of dune-building structures should be placed on the back slope of the dune created by the first tier to increase dune height and fill any trough which may be present between the existing dune and the newly created dune.
- (3) In washover areas:
 - (a) Dune-building structures may not be erected in washover areas except adjacent to the toe of existing dunes.

- (b) Erection of dune-building structures adjacent to the toe of existing dunes in washover areas must follow the guidelines for repairing damaged sand dune frontal areas described in the sections above. The dune building structures should be placed parallel to existing dunes bordering the washover area instead of parallel to the gulf shoreline.

2. Vegetative

- a. The placement and extent of planted areas must conform to the guidelines established for mechanical means of improving, rebuilding, or repairing sand dunes in sections above.
- b. Appropriate native vegetation must be used for dune restoration and repair. The vegetation must derive from a nursery or from an approved native vegetation area with high density vegetation.
- c. Success of vegetative means of improving, rebuilding, or repairing sand dunes may be promoted by mulching, watering, using biodegradable netting, or fertilizing with organic fertilizers.
- d. Sand dunes may be mechanically built and then vegetated with appropriate native vegetation to reduce dune building time.

V. MANAGEMENT OF THE PUBLIC BEACH

A. General Access Standards

- 1. The County will regulate pedestrian or vehicular beach access, traffic, and parking on the beach only in a manner that preserves or enhances existing public right to use and have access to and from the beach. The County will not impair or close an existing access point or close a public beach to pedestrian or vehicular traffic without prior approval from the GLO. The County's goal is to respond to the needs and wishes of the residents and property owners as those relate to continuing vehicular access onto the beaches or the future restriction of such access and to preserve or enhance public access to and use of the beach. This Order currently allows vehicles to drive or park along all or a portion of the public beach as a significant means of beach use and access. It is acknowledged that allowing beachfront construction to proceed without provision for alternative public access - such as off-beach parking areas - effectively requires continued driving and parking on the beach, at least until such time as alternative access is provided, as through dedication by owners or purchase by the County. Decisions concerning closing of beach access will come about through methods described in this Order. This goal is consistent with the State's beach access goal.
- 2. The County establishes the following criteria for beach access:
 - a. Parking on or adjacent to the beach will accommodate one car for each 15 linear feet of beach.
 - b. Where vehicles are prohibited from driving on and along the beach, ingress/egress access ways will be no farther apart than ½ mile.
 - c. Signs are and will be conspicuously posted which explain the nature and extent of: access points, vehicular controls, beach parking fees, and parking areas.

B. Designation of Access Ways, Parking Areas, and Beaches Closed to Motor Vehicles